

Application No.: 10/024432

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REMARKS

Claims 1-23 are pending in the application of which claims 1, 16 and 21 are independent. Claim 23 has been added with this Amendment.

Claim Rejections Pursuant to 35 U.S.C. §102(b)

Claims 1-8, 11-12, 16-17 and 21-22 were rejected under 35 U.S.C. §102(e) as being anticipated by Guck (United States Patent Number 5, 848, 415, hereafter "Guck"). For the reasons set forth below, Applicants respectfully traverse the rejections.

Summary of Claimed Invention

The claimed invention provides a mobile content framework (MCF) that facilitates abstracting content and behavior from the rendering of content on a requesting device. Content is abstracted in a manner specifically tailored to take into account the limited resources of certain devices such as mobile device (although the process works for devices not under resource restrictions). The abstraction process allows the distribution of uniform content to multiple types of requesting devices. Content is generated specifically for each device, both from a display and attribute standpoint and a content navigation standpoint. The MCF includes a generic markup language, referred to as Wireless Abstract XML (hereafter WAX) that is easily extended and can be translated into a variety of different mobile device markup languages. Content is first translated into WAX from the original language of the content provider, or is created in WAX originally, and then converted into a device appropriate language for a requesting mobile device. WAX is designed to enable the content developer to describe content at a more abstract level than that used in individual protocols. The greater level of abstraction enables the subsequent conversion of WAX into the languages used by the requesting mobile devices such as WML, HDML and HTML. Typical markup languages focus on how content is rendered on the device, while WAX focuses on generic but smart objects whose transformation is tailored to specific devices. During this transformation process, the MCF ensures the best type and length of text is used, the best type and size of image is used, and that the content is well

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suited and customized for the device attributes. The customization process uses device attribute records stored in databases to choose appropriate content for the requesting device.

Summary of Newly Added Claim

Applicants have added new claim 23 to claim exemplary device attributes which may affect the conversion of the content provided to the user.

Summary of Guck

Guck discusses the use of a protocol and format conversion process that may be utilized with an object database. Requests from a client device for a document cause the requested document to be retrieved, and if necessary, converted to a protocol and format required or requested for the requesting client device. The conversion process uses many different converter objects to perform the required transformations. In the event a single converter for the required transformation cannot be identified, the system of Guck allows multiple converters to be chained together to produce the result as part of multi-stage process.

Argument

Guck fails to disclose all of the elements of Applicants independent claims, claims 1, 16 and 21, and therefore fails to anticipate Applicants invention.

Applicants' invention as claimed provides transformed content that is also specifically tailored to the attributes possessed by the requesting device. The attributes may involve device features, memory, storage capacity, communication speed, type of operating system and other attributes related to the device (see page 6 lines 4-8). Independent claims 1 and 21 (the independent method claim and corresponding medium claim) both include the element of:

"providing at least one registry containing device information for multiple types of mobile devices, said information including device attributes for each type of mobile device"

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Independent claim 16 recites the same limitation for a wireless device. The Examiner indicated that "Guck is silent on providing registry information for the device. However this feature is deemed to be inherent to the Guck system, Guck system shows converting the content for any device in any format, col. 4, lines 33-39. Guck system would be inoperative if the converted format is not compatible with client device" [see Office Action mailed June 13, 2005 page 3 at bottom]. Applicants respectfully disagree that the format conversion discussed in Guck is the equivalent of converting content based in part on device attributes and suggest that it is quite possible to convert format of content (thus making the content compatible with the client device) without tailoring the converted content based on device attributes (a step required in Applicants' claims).

The claimed invention converts the format of content while also tailoring the converted format based on device attributes of the intended device. As stated in the Summary of the Invention section in Applicants' specification, "[T]ypical markup languages focus on how content is rendered on the device, while WAX [Applicants' generic markup language] focuses on generic but smart objects whose transformation is tailored to specific devices. During this transformation process, the MCF ensures the best type and length of text is used, the best type and size of image is used, and that the content is well suited and customized for the device attributes"[emphasis added](see page 3 of application, lines 20-25). "The content is not only translated into a specific language appropriate for the device, but also (unlike traditional XSL stylesheets) is tailored based upon the attributes of the requesting device" (see page 6, lines 2-4). This tailoring of content based on the device attributes is missing from Guck.

A close examination of Guck reveals that it is focused on content transformation and making the content available using multiple communication protocols and is not directed to tailoring the converted content based on device attributes. As stated in the Background of the Invention section at col. 1, lines 34-37, "Such type of networks with multiple numbers of connected clients present many problems in that many of the client stations are limited to particular types of content format and protocol delivery." "It would be most desirable to provide a network where any client, no matter what format his document consists of, or what his personal computer protocol system utilizes, could create, originate or author a document and enable this document's content to be suitably formatted for transmittal to and reception by

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personal computer clients or appliances requiring specialized formats and different types of protocol so as to be received by appliances such as FAX machines, telephones and e-mail users"[col. 1, line 64-col. 2, line 5]. As summarized in the Summary of the Invention section at col. 4, lines 34-43 states:

"When a User connects to a server using a particular protocol and seeks a document via a "get" request, the server finds the corresponding resource object and, if necessary, can dynamically modify its characteristics to accommodate formatting requirements requested by the User and/or formatting requirements required by the protocol being used. A document can be dynamically converted to a wide range of formats and accessed via a wide range of protocols without the document's author having to anticipate the formats and protocols that users may require ahead of time[emphasis added].

The term "format" "refers to specific arrangement of data on a disk or other storage media in order to meet established application requirements (col. 5, lines 54-57). Example formats given are WORD, HTML and plain text. "Protocol" refers to a set of formal rules describing how to transmit data, especially across a network (col. 5, lines 66-67). Example formats discussed include FTP, HTTP and IMAP. Guck simply is not directed towards, nor does it disclose, the tailoring of converted content based on device attributes as required by Applicants' independent claims.

Additionally, Independent claims 1 and 21 include the element of converting content from a generic markup language into device-specific content. Similarly, independent claim 16 includes the elements of translating content to a generic markup language and then converting the content into a device-specific content. Guck fails to disclose the use of a generic markup language in either the Examiner-cited sections of the reference or anywhere else in the patent. Rather, the system discussed in Guck relies on the use of many different converter objects. Each of the converter objects performs a specific transformation from one format to another. See figure 5 and the discussion thereon located at col. 10, line 35 to col. 11, line 23 of Guck. This is a fundamentally different process from the conversion process described in Applicants' claimed invention. Guck notes that "[T]he actual algorithm used by each Converter object's transform function depends on the particular type of transformation that it performs. Some conversions are simple and some are very complicated (col. 11, lines 1-4)." Put another way, the amount of processing is highly dependent upon the specifics of the original and destination format. In

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contrast, Applicants' use of a generic markup language simplifies part of the conversion process by always starting the conversion process from an easily translatable base format. This is both a technical and functional difference and it is not disclosed by Guck.

In response to the Examiner's comments in the Response to Arguments section, Applicants respectfully submit that Figure 3 does not show the conversion of a document from a generic markup language. Furthermore, Applicants respectfully direct the Examiner's attention to page 3, lines 11-14 of Applicants' specification, "the MCF includes a generic markup language, referred to as Wireless Abstract XML (hereafter WAX) that is easily extended and can be translated into a variety of different mobile device markup languages." Numerous references to WAX, the generic markup language, then appear throughout Applicants' specification contrary to the Examiner's assertion that the generic markup language was only referred to in the claims and abstract.

Accordingly for all of the above reasons, Applicants request the withdrawal of the rejections directed to claims 1-8, 11-12, 16-17 and 21-22 and their subsequent allowance.

Claim Rejections Pursuant to 35 U.S.C. §103(a)

Claims 9-10, 13-15, and 18-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Guck in view of Bickmore et al (United States Patent No.: 6,857,102, hereafter "Bickmore"). For the reasons set forth below, Applicants respectfully traverse the rejections.

Argument

The combination of references cited by the Examiner, Guck in view of Bickmore, fails to teach or suggest all of the limitations found in Applicants' independent claims upon which claims 9-10, 13-15 and 18-20 are dependent. Bickmore discusses a document re-authoring system, but does not disclose, teach or suggest either the providing of a registry containing device information or the use of a generic markup language from which the content is converted into device specific content using the device attribute information (the limitations missing from

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Guck discussed above). Accordingly, Applicants request the allowance of claims 9-10, 13-15, and 18-20.

Although Applicants feel the current claims are all in condition for allowance, in the event the Examiner has remaining concerns regarding the pending claims, Applicants respectfully request a telephone conference with the Examiner to further discuss this matter.

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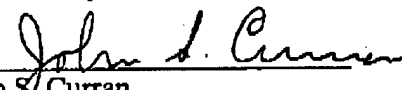
CONCLUSION

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Applicants believe no fee is due with this statement. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. KAQ-003 from which the undersigned is authorized to draw.

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Respectfully submitted,

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